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ABSTRACT

This paper sets forth the position that there are fundamentals that all people should attempt to master before, during, and after their mandatory educational programs. Three sets of ideas are presented which, in the context of lifelong learning, lead to an environmentally literate 21st Century citizen. The three sets of ideas include: (1) Four Components of Whole Earth Education; (2) Four Fundamental Areas of Growth/Learning: and (3) Appropriate Learning Experiences for Whole Earth Education. Each of these idea sets is expanded upon. A summary and references are presented followed by an epilogue, a section about the authors, acknowledgements, and an appendix of resource material sources. (RE)

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ENVIRONMENTAL EDUCATION

Occasional Paper #4

Forward to Fundamentals:

The Complete Education

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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September, 1979

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CONTENTS

FOREWARD ii

INTRODUCTION 1

FORWARD TO FUNDAMENTALS 2

FOUR COMPONENTS OF WHOLE EARTH/EDUCATION 3

FOUR FUNDAMENTAL AREAS OF GROWTH LEARNING 4

APPROPRIATE LEARNING EXPERIENCES FOR WHOLE EARTH EDUCATION 7

SUMMARY 10

REFERENCES 11

EPILOGUE 12

AUTHORS AND FRIENDS 13

APPENDIX - RESOURCE MATERIALS 15
RESOURCE PLACES 20

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*See page 13-14 for more information

FOREWORD

This occasional paper is part of continuing effort to put into useable form an alternative system of education. The framework described here would, if implemented, provide learners with a comprehensive and dynamic educational program for the complete education necessary for living in the 21st century and beyond.

The first phase in the development of this framework consisted of two seminars to think through the basic philosophy and to compile ideas that have been bouncing around for many years. Occasional Paper #1 is the statement of that philosophy and probably should be read before this one.

This occasional paper translates the philosophy into the components that will make it an acceptable alternative to (or as a part of) present educational programs. This paper is the result of a seminar held in February 1979 and subsequent writing and revising by the authors.

INTRODUCTION

Environmental Education, Whole Earth Education or just plain education in the 21st century will be much different than it is now. It is imperative that thoughtful educators make a strong effort to lay long-range plans so that short-range plans and activities will contribute to reaching long-range goals. Otherwise some of our present and near future efforts may well impede our progress toward the kind of educational program that will be needed to prepare young people who can adequately cope with living in a rapidly changing and radically different society.

Several prominent educators have recently addressed themselves to global problems and the ramifications they portend for education. The 1978 ASCD yearbook, Improving the Human Condition: A Curriculum Response to Critical Realities (Hoppe: pp.3-22),deals at length with the following concerns:

> change, the economy, technology and science, leisure and work, communication, the human population, ecology and pollution, government and politics, conflict and war and peace, and values and lifestyles.

Ernest L. Boyer (1977), former U.S. Commissioner of Education, suggests that the three themes of energy, environment and engagement (the interdependence of nations) be added to the core curriculum of reading, writing, and arithmetic.

Art Combs (1978) gives five reasons that make humanistic-oriented education absolutely essential:

1. The basic change in human problems
2. An unpredictable future
3. New concepts of human personality
4. New concepts of learning (experiential, personal, discovery of meaning)
5. The importance of self-concept

Harold Shane (1979) reiterates the need for: (1) a world community idea; (2) increased attention to process; and (3) ways to deal with change, complexity, and value structure shifts necessitated by shrinking resources and worldwide power struggles.

In Occasional Paper #1, the authors suggest an educational philosophy to deal effectively with such problems within the educational system. This paper attempts to translate that philosophy into a workable educational program.

FORWARD TO FUNDAMENTALS

The phrase "Forward to Fundamentals" is used to aptly convey the spirit of this present effort. Simply, we feel there are identifiable fundamentals that all people should attempt to master before, during, and after their mandatory educational programs. This idea translates into lifelong living/learning.

A simple listing of the fundamentals would hardly be an adequate explanation for looking at a total educational program. Further, a fairly large shift would have to take place in the structure of schooling as we know it today to accommodate the educational activities required to develop in students the fundamentals they need. We, therefore, have put together for your reflection three ideas that, when woven together into a comprehensive educational program, lead to a functional 21st century person. The three ideas are expanded in the following sections: Four Components of Whole Earth Education; Four Fundamental Areas of Growth/Learning; and Appropriate Learning Experiences for Whole Earth Education.

FOUR COMPONENTS OF WHOLE EARTH EDUCATION

In Occasional Paper #1 entitled "A Future Look at Environmental Education" an explanation of the four components of Whole Earth Education was given. When arranging for curricular experiences for students, educators should give careful consideration to: (1) learner growth; (2) learning processes; (3) learning climate; and (4) learning themes. Each is critical to the whole and all four are dynamically interactive. The following chart elaborates on this idea. Of particular importance is the interdisciplinary nature of the themes. They should be chosen carefully to reflect contemporary problems that are impacting directly on the learners. Effective learning activities will require learning skills and knowledge from traditional subject matter disciplines. These skills and knowledge should be acquired as the activity unfolds.

LEARNER GROWTH (people are helped to become more)	LEARNING PROCESSES (which are)	LEARNING CLIMATE (which is)	LEARNING THEMES (including)
caring	holistic	healthful	energy
sharing	learner oriented	comfortable	food
loving	democratic	non-threatening	land use
open	futuristic	positive	ekistics
accepting	humanistic	aesthetic	population
self-actualizing	varied	supportive	ecology
curious	participatory	flexible	plants
confident	interactive	diverse	animals
creative	appropriate	stimulating	ethics

OUTCOME

Whole people with a whole earth view.

The central idea presented here is that when planning learner activities the educator must fully recognize that the prime consideration for structuring and conducting the learning activities is the learners. Knowing a great deal about global issues (a whole earth view) is only part of the desired outcome. The learners must themselves grow toward wholeness as the process proceeds. If that growth does not occur, the idea of Whole Earth Education has not been understood. The next section of this paper deals with four areas of growth/learning.

FOUR FUNDAMENTAL AREAS OF GROWTH/LEARNING

People grow in a thousand ways. Yet growth in almost any area is connected with growth in other areas. Traditionally schooling has been mainly concerned with intellectual growth; recently, however, many educators are realizing that a heavy concentration on intellectual growth without consideration of other areas may be counterproductive.

Providing opportunities for growth in the four fundamental areas of growth/learning requires attention to balance. An enumeration of the four areas of growth/learning will aid in designing an educational program, which takes into account the interactive nature of growth. The following list in outline form should be considered illustrative rather than exhaustive. Further, each area of growth/learning is described in a verb form to help emphasize the continuous nature of growth along a continuum as opposed to an attainable goal.

I. Personal Growth

A. Physical realization

1. Making informed personal choices for food, fitness and health
2. Maintaining a healthy mind and body

B. Emotional development

1. Being aware of and understanding feelings and values
2. Growing in positive self-concept and self-confidence
3. Increasing self-reliance, self-motivation, self-discipline, and self-direction

C. Intellectual functioning

1. Moving toward competent use of the "3 R's"
2. Being able to cope intellectually with the "3 E's"--environment, energy and interdependent engagement (Boyer, 1977)
3. Developing skills in observing, obtaining, organizing, using, communicating and evaluating information and concepts
4. Developing skills in critical, divergent and creative thinking
5. Developing skills in decision-making

D. Social growth

1. Becoming skilled in communication and interpersonal relationships including: caring; sharing; loving; opening; trusting; and accepting others
2. Assuming both "leadership" and "followership" roles
3. Moving toward effective participation in family, learning, social and work groups which require a sensitivity to group processes and the ability to assist in conflict resolution

E. Spiritual and moral development

1. Having understanding of a universal oneness according to one's personal beliefs
2. Being able to examine, understand and respect the values of others
3. Possessing a sense of moral and spiritual integrity

II. Planetary Perspective

A. "World Citizenship" attitude

1. Developing an awareness of the "critical realities" (Hoppe, 1978)
2. Understanding of the finiteness of resources and the oneness of humankind
3. Encouraging a global ethic and practicing environmental stewardship

B. Helping resolve worldwide concerns through action

1. Participating in community/neighborhood activities
2. Participating in and contributing to state, regional and global efforts

III. Career Preparation

A. Acquiring appropriate knowledge for your career

B. Developing skills for career tasks

IV. Integrative Progress

A. Working toward a sense of self-fulfillment and realizing one's own potential

1. Being creative and flexible
2. Being resourceful and responsible
3. Thinking and acting positively and constructively

B. Participating in individual and group self-renewal

1. Enjoying creative expression and aesthetic encounters
2. Enjoying "flow" or peak experiences

C. Accepting and recognizing realities

1. Recognizing an independent/interdependent balance
2. Balancing learning, work and leisure and interconnecting when possible
3. Coping with complexity and change

D. Managing your life from a democratic perspective and living it with a futuristic, humanistic, interactive focus

APPROPRIATE LEARNING EXPERIENCES FOR WHOLE EARTH EDUCATION

When we know the components of a complete education and know the structure and functioning of quality educational experiences, we need to arrange learning experiences for students that are congruent with our educational knowledge and beliefs. This congruence is exceedingly difficult to achieve because: (1) the "system" does not lend itself to new ways of structuring learning experiences; (2) we have participated in so few instances of this particular kind of holistic multiple growth learning experiences ourselves; and (3) there are so few places where such new ideas of learning can be fairly tried out.

The learning experiences enumerated below are designed to provide individuals the opportunities to grow in multiple ways. A general description of the activity is given in the left-hand column and a few major areas of expected growth are listed in the right-hand column. We feel all of them have great potential for nurturing multifacted growth even to the extent that there will be growth in areas not mentioned. We have purposely written them in narrative form to allow creative teachers the greatest latitude in using them to reach multiple goals important to their students.

Learning Experiences	Expected Areas of Growth
1. Practice human relations skills. Students might have classroom meetings. Have students keep journals and identify roles they play in groups, e.g., initiator, leader, mediator, summarizer. Provide focus time for individual students in which they can talk about their problems, feelings, strengths and weaknesses in human relations.	Communicating and developing relationships Assuming both "leadership" and "followership" roles Becoming aware of feelings and values Increasing self-confidence and self-concept

Learning Experiences	Expected Areas of Growth
2. Have students initiate and participate with several others in a profit-making venture over a period of several months or longer. It should include a financial commitment along with the decision-making, management, and day-to-day responsibilities required to have the enterprise function smoothly. Try to choose a needed product or service that has a reasonable chance for success.	Improving decision-making skills Learning about government regulations Learning economic principles Developing and managing interpersonal relationships Developing leadership qualities Being responsible for decisions Determining ethical standards for the business and yourself Relating your business activity to worldwide economic conditions
3. Arrange for students to adopt a school function for a week. Keep notes while helping out with the cafeteria, the boiler room, or the teachers' workroom. Find out what makes the place work. Interview the people. Look for waste and conservation practices that could be used. Stage a public relations campaign or appreciation day for the people involved.	Learning to be creative and flexible Participating in a school group Encouraging a conservation ethic
4. Have students produce for their own use, using simple hand tools and natural materials something needed for everyday living (food, shelter, clothing) and use it for a period of time. Examples: home canned food; rope from twine; dried food; some form of shelter--lean-to, cave, log cabin; home-spun wool; woven basket; carved utensils; woven cloth; dyed cloth.	Building self-confidence Improving self-direction Getting exercise Developing skills in obtaining information Learning from doing Improving ability to work in group Gaining an appreciation for hard work Enjoying creative expression Becoming more resourceful Learning skills for career
5. Have students try to find out as much as they can about another culture (for example, a third world culture). Encourage pen pals, visits to the art museum, and interviews with someone from that culture, as well as library research. Have them share what they find with the class through some creative medium and decide together one thing the group could do to make a contribution to people from that culture.	Recognizing the oneness of humankind Contributing to global understanding Thinking creatively Obtaining and organizing information

Learning Experience	Expected Areas of Growth
6. Choose a place where you can observe for a day, week or month. By using only your senses, record on paper what you learn. Do not use reference books, measuring devices, equipment or ask others for information. As the observation proceeds, revise your notes as you learn what is transpiring. Using logical thinking and/or scientific thinking processes, draw some conclusions, suggest some patterns or make some predictions. Examples: classroom, street corner, restaurant kitchen, newspaper office, teacher's lounge, church group, little league team, park, natural area.	Improving observing skills Improving note taking Learning to use evidence to draw conclusions Improving self-dicipline Respecting values of others Building self reliance
7. Choose one person and spend 20 hours in serious discussion trying to explain to each other the deepest possible meaning of what life on this planet should be. The sessions should not be longer than two hours each and should stretch over 10 to 20 days. Perhaps several of these sessions should be planned: one peer; one older person; one relative; one whole person; one person with many hangups.	Building trust Learning to be caring and open Developing a sense of purpose Respecting the values and beliefs of others Learning to express your ideas and values clearly Developing a planetary perspective Becoming aware of one's own values and beliefs.
8. Take an issue such as the aged, nuclear power, strip mining, solid waste, global interdependence, future lifestyles. Interview people from as many sides of the issue as possible, have some experience or field trip related to the issue, i.e., visiting a senior center, meeting with a P.R. person or touring a nuclear power plant or strip mine. Synthesize a position from the data collected. Share the position and how you came to hold it.	Becoming aware of critical realities Encouraging environmental stewardship Recognizing the oneness of humankind Understanding the "3 E's" and using the "3 R's"

Participation in a significant number of these holistic learning experiences during a student's formal education will more likely produce an educated/fully functioning person able to cope effectively with the complex world of the present and the future. Other holistic learning experiences with a similar format and similar objectives have been proposed by others and new ones are going to be described in increasing numbers. Putting them into practice is a challenge for all of us.

SUMMARY

This Occasional Paper has described an educational program the authors believe to be workable and effective in producing educated fully functioning persons. First, there needs to be appropriate attention paid to the FOUR COMPONENTS OF WHOLE EARTH EDUCATION: (1) the growth/learning of the PEOPLE involved; (2) the LEARNING PROCESSES used; (3) the LEARNING CLIMATE established; and (4) the THEMES chosen for study.

Secondly, there needs to be a balanced emphasis among the FOUR AREAS OF GROWTH/LEARNING: (1) PERSONAL GROWTH; (2) PLANETARY PERSPECTIVE; (3) CAREER PREPARATION; and (4) INTEGRATIVE PROGRESS. These areas of growth/learning should be addressed simultaneously rather than separately for greatest impact.

Finally, there needs to be a sustained effort by educators, administrators, and the community to make the necessary changes in the educational structure to permit the APPROPRIATE LEARNING EXPERIENCES FOR WHOLE EARTH EDUCATION to be fully implemented. Participation in experiences such as those described in this paper will enable a person to come to a balance among caring about himself, caring about others and caring about the world.

As the Whole Earth Education idea spreads and grows, our significant roles as interdependent people in a complex global society will be further refined. The acceptance of Whole Earth Education by a critical mass of people will most surely lead to the emergence of new patterns of learning and living.

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Boyer, Ernest L. in "Energy Education Notes." Environmental Education Report, September 1977, p.8.

Combs, Arthur in "Humanism, Education and The Future," Educational Leadership, January 1978, pp. 300-302.

Hoppe, Arthur in Improving the Human Condition: A Curricular Response to Critical Realities, J.J. Jelinek, ed.; Washington, D.C.: Association for Supervision and Curriculum Development, 1978.

Shane, Harold G. in "Forecast for the 80's" Today's Education, April-May, 1979, pp. 62-65.

EPILOGUE

How important are the three R's if you:

haven't received love from a friend?

kill yourself before your 18th birthday?

haven't seen the sun rise?

grow up to be a spouse beater?

haven't stomped in a mud puddle?

speak with forked tongue?

haven't cooked a meal over a wood fire?

abuse your sons and daughters?

haven't done a friend a good turn today?

are an ego maniac?

haven't played "Taps" on a bugle or "Beethoven's 5th" on a clarinet?

deny every compliment that comes your way?

missed the last symphony concert?

can't keep your job?

didn't hear the at-dusk call of the whippoorwill?

refuse to bestow compliments on friend or foe?

see no reason to help a friend in need?

were too busy to say thank you?

complain about everything?

avoid a walk in the rain?

think excellence is a checking account balance ?

die of an overdose of drugs?

go to sleep without having given someone a hearty hug?

John Hug

About the authors . . .

From my undergraduate program in science education at Ursuline College for Women in Cleveland (spanning 11 years and including the births of four children), to my master's program in Popular Culture at Bowling Green State University that provided a look at the sociological/cultural implications of environmental education, to my present educational status as doctoral candidate in curriculum and instruction at the University of Toledo, many significant other people and experiences have influenced my thinking.

Jobs and the people and experiences encountered within them including part-time substitute jobs in both public and parochial schools, high school human ecology teacher in Toledo, university research associate and lecturer at Bowling Green's Environmental Studies Center, my present position as educational consultant at Lucas County Schools, have helped me formulate an educational philosophy. The patient help of professors, colleagues and friends has aided in both thought processes and personal development.

From my deep love of Lake Erie and a family homestead at Kelleys Island, Ohio, through an ever-growing realization of the beauty of individual people, comes the need for integration of the love of people and environment in some kind of intertwined form. Thus, my enthusiasm for Whole Earth Education.

Judy DuShane
Toledo, Ohio

Working on this Whole Earth Education idea not only brought me in contact with some unusually competent people over the last few months but allowed me to think back to people and happenings from over the years. My studies at Iowa State University, Indiana University, and Michigan State University led to the realization that cooperative learning was going to be a lifelong interest.

Teaching in a resident outdoor education center at Battle Creek, Michigan, was the first of a series of opportunities to sharpen my teaching skills and have the counsel of some very mature people. Elementary and junior high school classroom teaching and university teaching opportunities in places like Oregon, Illinois, Grove City, Ohio, Nothern Illinois University, Antioch College, and Pennsylvania State University gave me more valuable insights into the educational process.

Some of these experiences also gave me the opportunity of trying to cope with administrative responsibilities. Working with state and national organizations helped the development of the skills of organization and idea synthesis. Now in my position as environmental education consultant with the Ohio Department of Education all of these skills are useful.

I feel confident that many more unusually competent people will come into my life and that opportunities for further growth will come faster than I can assimilate them.

John Hug
Columbus, Ohio

AND FRIENDS

Judy DuShane and John Hug could not have written this paper without the known and unknown help of all the educators and friends and others who have recently or in the past crossed our paths personally or by the written word. Each of these people has contributed to the essence of these papers.

There are a group of people to whom we are most recently indebted. They participated with us in a two-day session to explore the ideas of this occasional paper. After a several month incubation period and several revisions, we present it for your use.

The seminar attendees were:

Tim Kreps
Sylvania Southview High School
Slyvania, Ohio

Teri Hansen
Pemberville Elementary School
Pemberville, Ohio

Sheryl Maningo
Cooperative Environmental
Education Center
Bowling Green State University

Deb Yandala
Lutheran Memorial Camp
Fulton, Ohio

Adelia Peters
College of Education
Bowling Green State University

APPENDIX A

Resource Materials

Abruscato, Joe and Jack Hassard
Loving and Beyond: Science Teaching for the Humanistic Classroom
Pacific Palisades, California: Goodyear Publishing Co., 1976.

An excellent cross-disciplinary source for curriculum ideas from an affective perspective.

Abruscato, Joe and Jack Hassard
The Earth People Activity Book
Santa Monica, California: Goodyear Publishing Co., 1978.

Creative ideas for geography, earth science, social studies and?...

Abruscato, Joe and Jack Hassard
The Whole Cosmos Catalog of Science Activities
Santa Monica, California: Goodyear Publishing Co., 1977.

Many good activities for hands-on experiences.

Ahern, John F. and Nanci D. Lucas
Ideas
New York: Harper & Row Publishers, 1975.

Handbook with ideas on alternatives for social studies instruction.

Allen, Rodney, F., C.P. Foti, D.M. Ulrich and S.H. Woolard
Deciding How to Live on Spaceship Earth
Winona, Minnesota: Plover Books, 1974.

Case studies, games and small group strategies based on environmental issues.

Bolles, Richard N.
The Three Boxes of Life: And How to Get Out of Them
Berkeley, California: Ten Speed Press, 1978.

A follow-up to *What Color is Your Parachute?* with several useful life/work planning strategies.

Bolles, Richard N.
What Color is Your Parachute?: A Practical Manual for Job-Hunters and Career Changers
Berkeley, California: Ten Speed Press, 1974.

The "bible" of life/work planning.

Canfield, Jack
Humanistic & Transpersonal Education: A Guide to Resources
Amherst, Massachusetts: The Institute for Holistic Education, 1978.

A "bibliography-in-progress" with annotations and information on the new-age education concept and many practical resources as well.

Canfield, Jack and Harold Wells
100 Ways to Enhance Self-Concept in the Classroom
Englewood Cliffs, California: Prentice-Hall, Inc., 1976.

Collection of exercises, stragegies and techniques for building a positive and success-oriented community in any classroom.

Caprio, Betsy
Poster Ideas for Personalized Learning
Niles, Illinois: Argus Communications, 1974.

A creative book with over 100 classroom activities of an affective nature to be used with posters published by Argus.

Curwin, Richard and Geri Curwin
Developing Individual Values in the Classroom
Palo Alto, California: Learning Handbooks, 1974.

Over 100 down-to-earth suggestions on how to facilitate the development of trust and self respect in the classroom.

DuShane Judy and John Hug
A Future Look at Environmental Education
Columbus, Ohio: Ohio Department of Education, Office of Education, 1978.

An overview of "Whole Earth Education."

Dunn, Rita and Kenneth Dunn
Teaching Students Through Their Individual Learning Styles: A Practical Approach
Reston, Virginia: Reston Publishing Co., 1978.

Provides instruments and practical suggestions for matching and/or attending to various teaching/learning styles.

Eberle, Bob and Rosie Hall
Affective Direction
Buffalo, New York: D.O.K. Publishers, Inc., 1979.

A useful collection of affective activities to improve self-concept, enhance interpersonal relationship, increase social awareness, develop trust, and improve mental health.

Education Development Center
Unified Science and Mathematics for Elementary Schools: Mathematics and the Natural, Social, and Communication Sciences in Real Problem Solving
Newton, Connecticut: Education Development Center, 1974.

A complete multidisciplinary curriculum based on a manipulative and problem solving approach.

Environmental Studies Project
"Essence I & II" (cards)
Barrington, Illinois: Addision-Wesley Publications, 1975.

Interdisciplinary all age, open ended activity cards.

Gregory, George Peter
Environmental Concerns--The Nation
New York: Harcourt Brace Jovanovich, Inc., 1977.

An excellent case study-oriented textbook for Jr. High School-High School.

Goodman, Joel
Turning Points: New Developments, New Directions in Values Clarification, Vols. I & II
Saratoga Springs, New York: Creative Resources Press, 1978.

Each volume includes sections on theory, applications, resources and new strategies. A thorough update of values clarification.

Greer, Mary and Bonnie Rubinstein
Will the Real Teacher Please Stand Up?
Pacific Palisades, California: Goodyear Publishing Company, 1972.

It's about how children are seedlings and need to be nurtured.

Howe, Leland W. and Mary Martha
Personalizing Education: Values Clarification and Beyond
New York: Hart Publishing Co., 1975.

Over 100 strategies, work sheets and extensions of values clarification techniques.

Irwin, Karen and Susie Franklin
The Total Person
San Diego: Pennant Press, 1975.

One of a series of games which strengthens skills in decision making communications, self-awareness, interpersonal relations, and understanding human behavior.

Kirschenbaum, Howard, (ed.)
The Catalog for Humanizing Education,
Saratoga Springs, New York: NHEC, 78-79.

A loose-leaf, cross-referenced, comprehensive annotated bibliography

Ohio Department of Education
Environmental Learning Experiences--Grades K-2
Columbus, Ohio: Ohio Department of Education, 1973.

Easily used teachers' guides for environmental education.

Palomares, Uvaldo and Ben Logan
A Curriculum on Conflict Management
La Mesa, California: Human Development Training Institute, 1973.

Many different strategies for dealing with conflict.

Palomares, Uvaldo and Geraldine Ball
Magic Circle: An Overview of the Human Development Program
La Mesa, California: Human Development Training Institute, 1974.

Provides general information about the "Magic Circle" approach to human relations and affective curriculum.

Samples, Bob, Cheryl Charles and Dick Barnhart
The Wholeschool Book: Teaching and Learning Late in the 20th Century
Reading, Massachusetts: Addison-Wesley, 1977.

A delightful and thought-provoking blend of theory and activities for holistic education.

Schrank, Jeffrey
Teaching-Human Beings: 101 Subversive Activities for the Classroom
Boston, Massachusetts: Beacon Press, 1972.

Super resource for dealing with controversial issues.

Simon, Sidney
I Am Loveable and Capable (IALAC)
Niles, Illinois: Argus Communications, 1973.

Colorful booklet which demonstrates that personal affirmations are the beginning point for shaping creative learning environments and putdowns damage the human spirit.

Simon, Sidney, L. Howe and H. Kirschenbaum
Values Clarification: A Handbook of Practical Strategies for Teachers and Students
New York: Hart Publishing Co., 1972.

The "how-to" book that popularized many of the affective education strategies. A good beginning point for a variety of activities.

Stanish, Bos
Sunflowering
Carthage, Illinois: Good Apple, Inc., 1977.

Activities, thinking, feeling, and doing, which encourage imaginary and real happenings to occur in the mind.

Stapp, William B. and Dorothy A. Cox
Environmental Education Activities Manual: Vols. I-VI
Farmington, Michigan: Staff & Cox, 1975.

Includes diverse activities arranged by grade level to deal with many environmental issues.

Stone, Karen and Harold Dillehunt
Self-Science: The Subject Is Me
Santa Monica, California: Goodyear Publishing Company, Inc., 1978.

Activities based on the assumption that learning requires thinking and feeling and begins with experiencing.

Sweeney, Robert E.
Environmental Concerns--The World
New York: Harcourt Brace Jovanovich, Inc., 1977.

A follow-up test for Environmental Concerns in the Nation. Excellent source for helping to develop global perspective.

Van Matre, Steve
Acclimitazion, Acclimatizing
Bradford Woods, Indiana: American Camping Association, 1974.

Terrific resources for helping students really experience their environments.

Weitzman, David
My Backyard History Book
Boston, Massachusetts: Little, Brown & Co., 1975

Super strategies for knowing self and community and appreciating history. (Middle school--Jr. High)

Wurman, Richard Saul
Yellow Pages of Learning Resources
Cambridge, Massachusetts: MIT Press, 1972.

A classic for field trips, projects and non-traditional learning activities.

Resources Places

The Cooperative Environmental Education Center (CEEC)
Environmental Studies
Bowling Green State University
Bowling Green, OH 43403

Has an environmental curriculum materials collection.

Crosby Gardens Environmental Library
5403 Elmer Drive
Toledo, OH 43615

Has a collection of environmental curriculum materials.

Essentia
Salina Star Route
Boulder, CO 80302

Sensitive, beautifully done films for humanistic/environmental education.

Global Learning, Inc.
Jeffrey Brown
40 South Fullerton Avenue
Montclair, NJ 07042

Provides programs and materials with a peace, justice and human values emphasis. Newsletter--"Gleanings"

Institute for Wholistic Education
Jack Canfield and Paula Klimek, Directors
New England Center
Box 575
Amherst, Massachusetts 01002

Educational resources, services and programs.

National Humanistic Education Center (NHEC)
Barbara and Howard Glaser-Kirschenbaum, Co-Directors
110 Spring Street
Saratoga Springs, New York 12866

Provides workshops and materials for humanistic education.

Ohio Alliance for Environmental Education
445 King Avenue
Columbus, Ohio 43201

Provides networks of persons and agencies interested in environmental education.

OCCASIONAL PAPERS

This is the fourth in a series of papers designed to provide interested people with some current information about environmental education. The occasional paper format was chosen because it provided for rapid production and therefore timeliness. The varied topics of these papers will allow them to be distributed to different and specific audiences, thereby reducing the possibility of unused or wasted copies. Other topics now being considered for publication are:

An Explanation of Appropriate Technology

Dealing with Environmental Issues: The Use of Simulation

School Land Laboratories: Their Use and Development

Resident Outdoor Education: Some Program Guidelines

Responsibilities of a School District Coordinator of Environmental Education

Suggestions for other topics will be welcome:

Authors for these papers will be Ohioans in and out of the Ohio Department of Education and, therefore, the views expressed are those of the authors.